

1. CONCRETE SHALL HAVE 4000 PSI COMPRESSIVE STRENGTH AT 28 DAYS. UNLESS OTHERWISE NOTED (U.O.N.)
2. ALL REINFORCING STEEL SHALL BE DEFORMED BARS, AND SHALL HAVE A MINIMUM YIELD STRENGTH OF 60000 PSI GRADE 60, AND MEET ASTM A-615 SPECS.
3. ALL STRUCTURAL STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 36000 PSI, AND MEET ASTM A-36 SPECS.

'SOIL STATEMENT'

1. INSPECTION OF THE SITE INDICATES UNDISTURBED SAND (OR SAND ROCK) WITH A BEARING CAPACITY OF 2,000 PSF. SHOULD OTHER CONDITIONS BE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE PROCEEDING WITH THE WORK.
2. CENTERLINE OF FOOTING IS CENTERLINE OF COLUMNS AND BEARING WALLS. (U.O.N.)
3. ELEVATION OF TOP OF FOOTING SHALL BE 1'- 0" BELOW THE FINISHED GRADE. (U.O.N.)
4. PROVIDE BEND DOWELS AT ALL COLUMNS AND VERTICAL REINFORCEMENT SAME SIZE AND QUANTITY AS REINFORCEMENT,

- | | |
|---|--|
| 1. | MINIMUM CLEAR COVER FOR REBARS TO BE AS FOLLOWS: |
| COLUMNS - | 1-1/2" TO TIE FOOTINGS - 3" |
| PEDestal - 2" TO TIE SLAB ON FILL - 2" FROM TOP | BEAMS - 1-1/2" TO TIE
SLABS - 3/4" |
2. ALL REINFORCING SHALL BE HELD SECURELY IN POSITION WITH STANDARD ACCESSORIES.
3. SPLICES IN CONTINUOUS TOP REBARS SHALL BE MADE AT MIDSPAN. SPLICES IN CONTINUOUS BOTTOM REBARS SHALL BE OVER SUPPORT(S).
4. SPLICES IN REINFORCING, WHERE PERMITTED, SHALL BE AS FOLLOWS:

COLUMN VERT. BARS - 30 BAR DIA.	TEMPERATURE REBARS - 12" MIN.
FOOTING DOUELS - 30 BAR DIA. + 8"	WELDED WIRE MESH - 6"
TENSION SPlice - CLASS 'C'	ALL OTHERS - 30 BAR DIA.
5. PROVIDE 2 NO 5 36" LONG BEND BARS AT CORNERS OF BEAMS.

1. FILL MATERIAL SHALL BE CLEAN SAND AND ROCK COMPACTED TO 92% OF MAXIMUM DENSITY IN LIFTS NOT TO EXCEED 12' IN DEPTH.
2. PLACE CONCRETE SLABS-ON-FILL IN A CHECKERBOARD PATTERN, NO PANEL EXCEEDING 25 FEET OF LENGTH, OR 625 SF IN AREA, OR USE CONTROL JOINTS.
3. ELEVATION TOP OF CONCRETE SLAB SHOWN THUS: ±OR MATCH EXISTING ADJACENT FLOOR ELEVATION.
4. WALLS, COLUMNS, AND BEAMS, PENETRATING SLAB ON FILL, SHALL BE ISOLATED BY 1/2" FRESHMOLDED JOINT FILLER (U. O. N).
5. SLABS-ON-FILL SHALL BE PLACED OVER 1 LAYER OF PLASTIC MEMBRANE, SUCH AS 6 MIL VISQUEEN OR SIMILAR.
6. SLABS ON FILL SHALL BE CURED CONTINUOUSLY FOR 5 DAYS.

1. THE DESIGN COMPLIES WITH THE REQUIREMENTS OF THE FBC AND ALL LATEST EDITION AT THE TIME OF PERMIT.
2. HANDRAILS AND STAIR RAILINGS TO COMPLY TO FBC 1204.2 AND 11135
3. LINTELS:
 - A. THE CONTRACTOR SHALL PROVIDE PRECAST CONCRETE LINTELS AT THE HEADS OF ALL OPENINGS IN MASONRY WALLS NOT EXCEEDING 8'-0" IN WIDTH WHERE BEAMS HAVE BEEN SPECIFIED.
 - B. LINTEL MAY BE INTEGRAL WITH THE TIE BEAM OR THE STRUCTURE WHEN THE HEAD OF THE OPENING IS 16" OR LESS BELOW CONTINUE BEAM BOTTOM REBARS THROUGH AND ADD 2 #5 BOTTOM TRUSS BARS AT DROPS AND 2 #3 STIRRUPS AT 6" O.C. AT EACH END DROP.
 - C. MINIMUM BEARING FOR ALL LINTELS TO BE 8' ON EACH SIDE OR PROVIDE DOWELS AND FOCKETS IN ADJACENT CONCRETE COLUMNS.
 - D. LINTEL TO BE A MINIMUM OF 8" DEEP WITH 2 #4 TOP AND BOTTOM FOR CLEAR SPANS LESS THAN 6'-0", 12" DEEP W/2 #5 TOP & BOTTOM AND 2 #3 STIRRUPS @ 6" O.C. AT EACH FOR SPANS GREATER THAN 12'-0".

1. RAILINGS SHALL BE DESIGNED TO RESIST A LOAD OF 50 POUNDS PER LINEAR FOOT APPLIED IN ANY DIRECTION AT THE TOP. RAILINGS AS PER FBC. PICKETS AT 4' O.C.

1. STAIRS SHALL BE CONSTRUCTED WITH ADEQUATE STRUCTURAL MEMBER AND FASTENERS TO SUPPORT FULLY LOADED. RISERS SHALL NOT EXCEED 1-1/2' AND TREADS SHALL NOT BE LESS THAN 10". THE SUM OF TWO RISERS AND ONE TREAD SHALL BE NOT LESS THAN 24" AND NOT MORE THAN 25". RAILINGS SHALL BE PROVIDED ON BOTH SIDES AT A HEIGHT OF 36" AND NOT MORE THAN 42" FROM LINE OF GOING TO TOP OF RAIL. ALL EXTERIOR STAIRS OR STEPS SHALL BE FINISHED WITH A NON SLIP MATERIAL.

SUPERIMPOSED DEAD LOADS:

ROOF	25PSF
TRUSS T.C.	15PSF
TRUSS B.C.	10PSF
FLOOR	25PSF
BALCONIES	10PSF
BALCONIES	10PSF

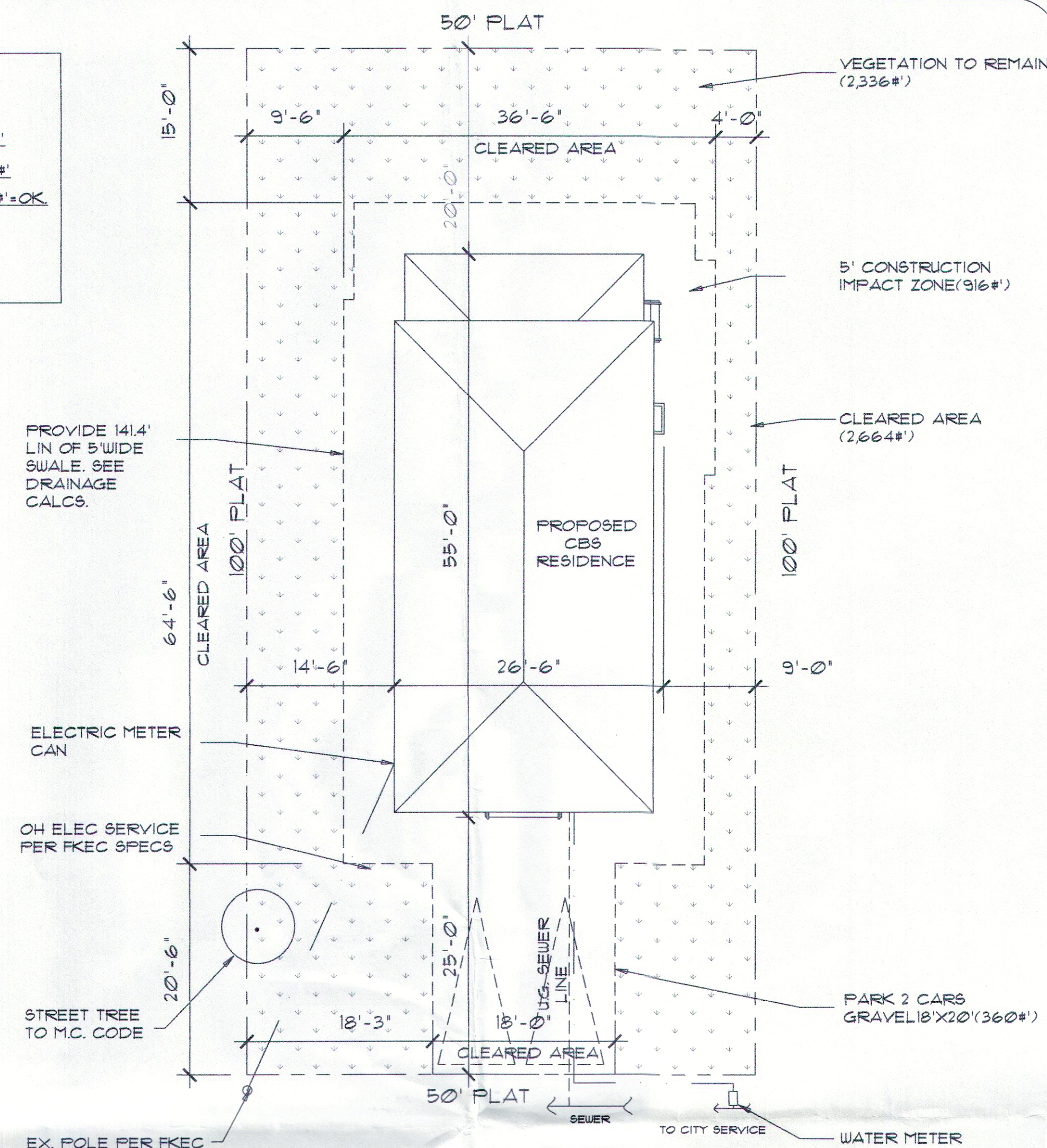
SUPERIMPOSED LIVE LOADS:
ROOF 30PSF
FLOOR 40PSF
BALCONIES 60PSF

1. ALL FINISH MATERIALS SHALL HAVE A MINIMUM FLAME SPREAD CLASSIFICATION BY FBC
2. PARTITIONS TO RUN FROM FLOOR TO UNDERSIDE OF SLABS, JOISTS, OR TRUSSES AND TO CONSIST OF WOOD STUDS AT 16" O.C. WITH 1/2" GYPSUM WALLBOARD ON BOTH SIDES.
3. ALL WALLBOARD BEHIND SINKS, LAVATORIES, BATHTUBS, SHOWERS, WATERCLOSETS, AND BIDETS PER FBC R102.4.2
4. CONTRACTOR TO COORDINATE THICKNESS OF ALL PARTITIONS TO ACCOMMODATE MECHANICAL, PLUMBING, AND ELECTRICAL WORK. DIMENSIONS SHOWN ON THE PLANS ARE NOMINAL.
5. LUMBER USED FOR JOISTS, RAFTERS, COLUMNS, BEAMS, OR OTHER STRUCTURAL MEMBERS SHALL BE OF A STRESS GRADE NOT LESS THAN 1000 PSI NOMINAL EXTREME FIBER STRESS IN BENDING.
6. LUMBER USED FOR STUDS IN INTERIOR NON-BEARING PARTITIONS SHALL BE OF A STRESS GRADE NOT LESS THAN 225 PSI NOMINAL EXTREME FIBER STRENGTH IN BENDING.
7. LUMBER USED FOR STUDS IN INTERIOR BEARING PARTITIONS SHALL BE OF A STRESS GRADE NOT LESS THAN 625 PSI NOMINAL EXTREME FIBER STRESS IN BENDING.
8. ALL WOOD IN CONTACT W/ MASONRY TO BE PRESSURE TREATED.

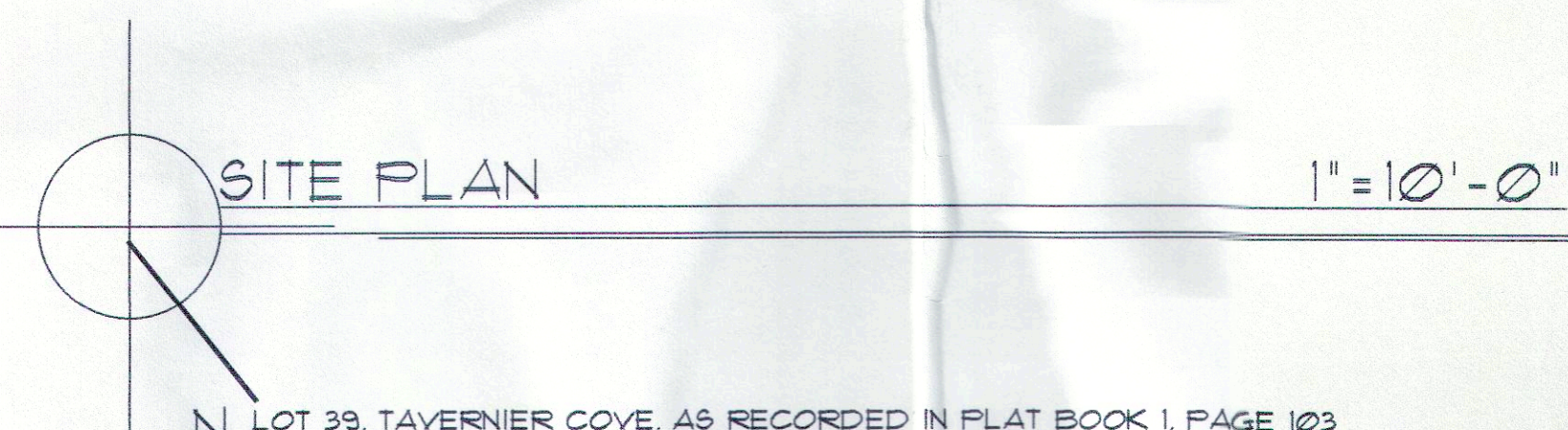
1. CONCRETE MASONRY UNITS (CMU), OR "BLOCKS", SHALL CONFORM TO ASTM C-90 SPECS.
2. COMPRESSIVE STRENGTH OF MASONRY UNITS SHALL BE NOT LESS THAN Fm-1000 PSI.
3. ALL BLOCK WALLS SHALL BE LAID IN A FULL BEDDING OF MORTAR WITH A COMPLETE COVERAGE OF THE BLOCK'S FACE SHELL (HORIZONTALLY) AND MORTAR GROOVES (VERTICALLY).
4. MORTAR TO BOND BLOCK MASONRY SHALL BE TYPE "M": 2500 PSI.
5. THE FIRST BLOCK CELL ADJACENT TO ANY OPENING SHALL BE FILLED WITH CONCRETE

NET LOT AREA 5000#'
Cleared Area Allowed 3000#'
Proposed Clearance 2664#'=OK

NET LOT AREA	<u>5000#'</u>
A/C AREA	<u>1597#'</u>
ROOF/SLAB	<u>1388#'</u>
PARKING(GRAVEL)	<u>360#'</u>
FLOODZONE	<u>AE 10</u>
EXISTING AVG GRADE	<u>836' NGVD29</u>
TOP OF ROOF	<u>8383' NGVD29</u>



SUNRISE DRIVE



CROSS SECTION

N.T.S.

PRINT FORM

MONROE COUNTY

RESIDENTIAL STORMWATER RETENTION CALCULATION SHEET

1. Determine Total Impervious Coverage on site:

a. Determine Impervious Coverage EXISTING prior to new improvement:

Roofslabs	A	0.00	ft	Sidewalks	D	0.00	ft
Decks / Patios	B	0.00	ft	Pool/Deck	E	0.00	ft
Driveways	C	0.00	ft	Other	F	0.00	ft

Impervious Coverage EXISTING prior to improvement (A + B + C + D + E + F) 0.00 1a

b. Determine NEW Impervious Coverage PROPOSED with improvement:

Roofslabs	A	1,388.00	ft	Sidewalks	D	0.00	ft
Decks / Patios	B	0.00	ft	Pool/Deck	E	0.00	ft
Driveways	C	360.00	ft	Other	F	0.00	ft

Impervious Coverage PROPOSED with improvement (A + B + C + D + E + F) 1,748.00 1b

Total Impervious Coverage: EXISTING + PROPOSED (1a+1b) 1,748.00 1

2. Determine Percentage of Impervious Coverage on site:

1,748.00 1 ft² / 5,000.00 ft² = 34.96% 2 % of Impervious Coverage
Total Impervious Coverage Total Lot Area

3. Determine "Disturbed Area" [(114-3(f)/2) 4]

5,000.00 ft² - 2,336.00 ft² = 2,664.00 3 Disturbed Area
Total Lot Area Native Vegetation - If no BMP enter "0"

For the purposes of this section, the term "disturbed area" includes the entire lot except that the areas covered by the following best management practices (BMP) shall be subtracted from the calculation of disturbed area: (1) Forested upland areas/vegetative buffer strips (both natural and manmade) which will be retained intact and/or where both vehicular access or travel is not possible and will not occur and; (2) Open water surfaces and wetlands (all marsh, bottomland, mangroves, or freshwater marsh habitat types). It will be the responsibility of the applicant to affirmatively demonstrate that the best management practices used for the project are designed, constructed, and maintained properly.

4. Determine Required Swale Volume - Complete a, b, or c:

a. For a NEW home with less than 40% Impervious Coverage, use:

2,664.00 3 ft² x 0.083 = 221.11 4a ft³ Swale Volume
Disturbed Area

b. For a NEW home with 40% or greater Impervious Coverage, use:

2,664.00 3 ft² x 0.208 x 34.96% 2 = 193.72 4b ft³ Swale Volume
Disturbed Area

c. When only new impervious area requires storm water retention (Existing Single Family & Duplexes Only):

1. When the total lot impervious coverage remains below 40% after the additional development:

1,748.00 1b ft² x 0.083 = 145.08 4c ft³ Added Swale Volume
Impervious Coverage PROPOSED Swale Volume

2. When the new development increases the total lot impervious area to 40% or above:

1,748.00 1b ft² x 0.208 = 363.58 4c ft³ Added Swale Volume
Impervious Coverage PROPOSED Swale Volume

5. Determine Swale Length (Swale side slopes must be no steeper than 4:1)

(5.00 ft) x (0.63 ft) / 2 = 1.56 ft² Cross Sectional Area**
Width Depth
221.00 ft³ / 1.56 ft² = 141.44 ft Swale Length
Swale Volume Cross Sectional Area
Either 4: 1, 6: 1, or 8: 1
(*E.g., a V-shaped swale with 4:1 slopes, 8 feet wide and 1 foot deep has 4 SF of Cross Sectional Area.)

Source: These Formulas are derived from the criteria for Water Quality treatment in paragraphs (f)(2)(b), & a. of Monroe County Code 114-3.
Updated 10/15/12

Keys Engineering Services

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Tavernier, FL 33070(305)852-0262

A CBS RESIDENCE FOR:

TIEDEMANN

144 SUNRISE DRIVE
TAVERNIER, FL 33070

RE: 00506320-000000

DATE: 5/21/201

SCALE: SHOWN

GRAPHIC

Joe:

FILE NAME:

SHEET No.

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Q. 3. SH